

Date: Wednesday, 29/04/2009 3:00:38 PM  
 User: Julie Dawson

## Process Sheet

<b>Customer</b> : CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b> : BRACKET
<b>Job Number</b> : 47596	
<b>Estimate Number</b> : 11964	
<b>P.O. Number</b> :	<b>Part Number</b> : D2052 <b>BK</b>
<b>This Issue</b> : 29/04/2009 <b>S.O. No.</b> :	<b>Drawing Number</b> : D2052 REVD
<b>Prsht Rev.</b> : NC	<b>Project Number</b> : N/A
<b>First Issue</b> : / / <b>Type</b> : SMALL /MED FAB	<b>Drawing Revision</b> : D
<b>Previous Run</b> : 39556	<b>Material</b> :
<b>Written By</b> :	<b>Due Date</b> : 10/05/2009 <b>Qty:</b> 20 <b>Um:</b> Each
<b>Checked &amp; Approved By</b> : <u>JUL 09.04.29</u>	
<b>Comment</b> : Est C 01.08.21 Added Finishing SM (Issue this IPP with part number D2053) Est Rev:D now water jet 07-10-25 DD Est Rev:E 08-05-14 chg to revD as per ECN1171 DD verified by:EC	

## Additional Product

Job Number:



<b>Seq. #:</b>	<b>Machine Or Operation:</b>	<b>Description :</b>
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1.0	M5052H32S090	5052-H32 .090 Sheet
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**Comment:** Qty.: 0.1355 sf(s)/Unit Total : 2.7090 sf(s)  
 Material: 5052-H32, 0.090" Thick  
 (M5052H3S.090)  
 Batch: 100782 **B 9-5-26**

2.0	WATER JET	FLOW WATER JET
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**Comment:** FLOW WATER JET  
 1-Cut as per Dwg D2052  
 Dwg Rev: D **B 9-5-26**  
 Prog Rev: D  
 \*\*\*\*grain direction along 3.878" \*\*\*\*  
 2-Deburr if necessary **B 9-5-26**

(32)

3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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**Comment:** INSPECT PARTS AS THEY COME OFF MACHINE

4.0	QC8	SECOND CHECK
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**Comment:** SECOND CHECK

509/05/26 **count** (32)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Wednesday, 29/04/2009 3:00:38 PM  
User: Julie Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BRACKET

Job Number: 47596

Part Number: D2052

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

BRAKE NC

NC BRAKE



Comment: NC BRAKE

Form as per Dwg D2052 using CNC Brake

SB 09/05/26 (32)

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

counter  
509/05/27 (32)

7.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Acid etch and Alodine as per QSI 005

UMP 09/05/27

8.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Black Sandtex (Ref 4.3.5.8) as per QSI 005 4.3

START TIME: 3:15pm

OVEN TEMPERATURE: 320°C

FINISH TIME: 3:45pm

91 09-05-27 X32

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

Fx 09/05/28

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 579

09/05/28 (32)

11.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

09/05/28

Job Completion



MF 09-05-28

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



8 7 6 5 4 3 2 1

D

D

C

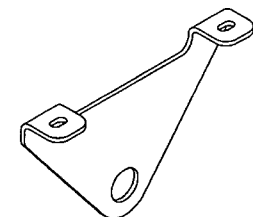
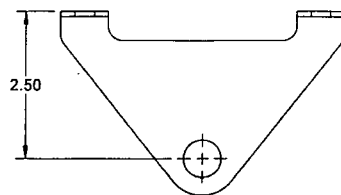
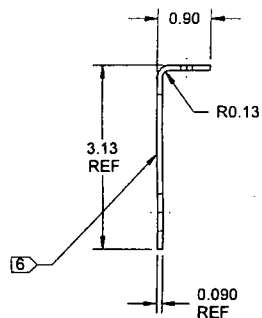
C

B

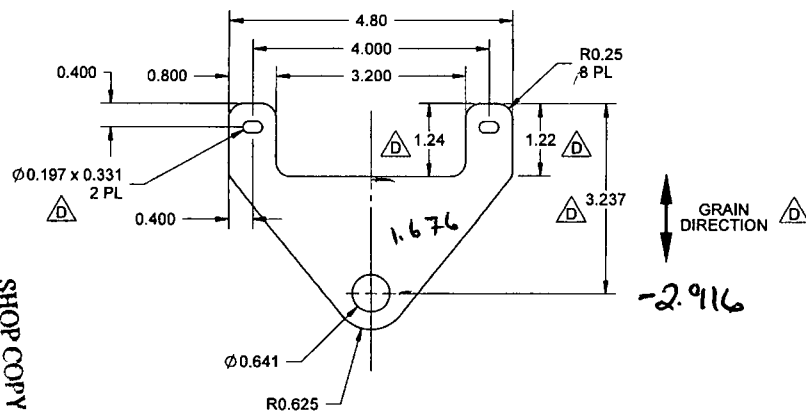
B

A

A



**D2052 BRACKET**



**D2052F FLAT PATTERN**

NO. 15  
WORK ORDER  
WITHOUT NOTICE  
SUBJECT TO AMENDMENT  
UNCONTROLLED COPY  
ENGINEERING  
RETURN TO  
SHOP COPY

- NOTES:**
- 1) MATERIAL: 5052-H32 ALUMINUM SHEET 0.090 THICK PER QQ-A-250/8 OR AMS 4016 (REF DART SPEC M5052H32S.090) OR 6061-T6 (OR-T62) ALUMINUM SHEET 0.090 THICK PER QQ-A-250/11 OR AMS 4025/4027 (REF DART SPEC M6061T6S.090)
  - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT BLACK SANDTEX (4.3.5.7) PER DART QSI 005 4.3
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D2052" USING FINE POINT PERMANENT INK MARKER OR LABEL AFTER FINISH
  - 7) WEIGHT: 0.08 lbs

RELEASED  
08-05-13/14

D	WIDEN SLOT (ZN B7-1); UPDATE FLAT PATTERN DIMENSIONS (ZN B5-1, B6-1); ADD 5061-T6 OPTION (ZN A5-1); ADD CHEMICAL CONVERSION COAT AND CHANGE TO BLACK SANDTEX (ZN A6-1); ADD IDENTIFICATION (ZN A4-1); ADD WEIGHT (ZN A8-1); ADD GRAIN DIRECTION (ZN B4-1); REASON: PRODUCT IMPROVEMENT (REF PAR 08-012)	PH	08.04.28
C	ADD FLAT PATTERN	RF	99.04.30
B	ADD SLOT TO FOOT	BW	97.02.21
A	NEW ISSUE	BW	92.01.12
REV.	DESCRIPTION	BY	DATE
DESIGN	BW	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	MP		
CHECKED	MP		
MFG. APPR.	MP		
APPROVED	MP		
DE APPR.	MP	DRAWING NO. <b>D2052</b>	
DATE <b>08.04.28</b>		REV. D SHEET 1 OF 1	
		TITLE <b>BRACKET</b>	
		SCALE NTS	
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